**Ontario Institute for Studies in Education**

**University of Toronto**

**371 Bloor Street West**

**Science Honour Specialist**

**Course of Study**

**Course Code: EAQ2250Y-S-6101**

**Summer 2009**

**Thursday, July 2 – Thursday July23, 2009**

**8:00 am – 1:30 pm**

**Instructor: Barbara Nixon**

**1. COURSE DESCRIPTION**

The Honour Specialist Science Course consists of a series of lectures, seminars, laboratory workshops, field trips and assignments designed to emphasize the expectations, methodology, and content of science at the K-12 grades. The Course is based on the Ministry of Education and Training The Ontario Curriculum, Grades 1-8: Science and Technology, The Ontario Curriculum, Grades 9 & 10 :Science. The Ontario Curriculum, Grades 11 & 12 :Science. The course examines the expectations, strategies for implementing the expectations, and methods and instruments suitable for evaluating the attainment of the expectations. The course also examines the pedagogical and leadership responsibilities of the Science Department Head or Curriculum Leader. It also focuses on the Standards of Practice for the teaching profession as they pertain to Science Education at for all divisions using the reference from the Ontario College of Teachers titled, Standards of Practice for the Teaching Profession, Revised 2008. There is a balance between meeting individual needs and preparing for the role of a Science leader in the school and Board.

**2. COURSE TIME ALLOCATION**

Note: The instructor will meet with small groups and individuals during monitored time to facilitate discussions, assist with concept planning, expedite mentoring, respond to Internet searches, etc.

Total Time

125 h

Contact Time

100 h

Non-contact Time

25 h

Classroom Contact

80 h

Monitored Contact

20 h

* lectures
* Concept Presentation
* laboratory activities/demos
* demonstrations
* guest speakers
* small group activities
* field trips
* research activities
* mentoring activities
* unit planning
* conferencing with instructor
* concept research
* unit planning
* AV preparation
* lab material prep
* software prep
* readings

**3. EXPECTATIONS**

3.1 MINISTRY EXPECTATIONS

Honour Specialist courses will provide candidates with opportunities to develop knowledge and competency in:

1. the organization and administration of science education programs for grades 7- 12 inclusive;
2. the design, development, implementation, and assessment of Intermediate and Senior Science programs;
3. the provision of professional development opportunities in science education at all levels.

**3.2 PROFESSIONALISM EXPECTATIONS**

Honour Specialist courses will provide candidates with opportunities to develop knowledge and competency in:

1. describing and modeling standards of practice in the teaching profession in Ontario as outlined in the Ontario College of Teachers document *The Foundations of Professional Practice* (available from www.oct.ca)
2. designing strategies for science department heads to use to nurture and monitor standards of practice in the science departments of their schools.

**3.3 COURSE EXPECTATIONS**

By the end of the course, a candidate in Honour Specialist Science should be able to demonstrate competence with the following expectations:

**Knowledge:**

1. demonstrate knowledge of the Ministry of Education expectations and policies with respect to the Intermediate and Senior Chemistry programs.

2. demonstrate a mastery of the content of the Intermediate and Senior Divisions Chemistry Curricula for Ontario;

3. identify hazards and implement proper safety procedures in teaching and in the storage of chemicals and equipment using WHIMIS, board and STAO documents;

4. be familiar with the Chemistry units from Grade 1 to 12 as outlined in the current Ontario curriculum documents;

5. understand the nature of child and adolescent development, individual learning styles and multiple intelligence theory and apply to planning and modifying Chemistry lessons;

6. describe and explain the roles and responsibilities of a Science Department Head/Curriculum Leader including advocacy, mentoring of new teachers, and creation and maintenance of professional learning communities;

7. demonstrate knowledge and understanding of using an inquiry approach to teaching science;

8. identify an extensive range of materials and resources that can be used in the teaching of Chemistry in the Senior Division;

9. describe strategies and resources for implementing a science, technology, society and environment (STSE) curriculum emphasis in the Chemistry classroom;

10. determine his/her own leadership and personal styles and describe how to interact with peers and others for maximum productivity;

11. Recognize the importance of literacy and numeracy across the science curriculum

**Skills:**

12. use various IT tools including; Internet, spreadsheets, Powerpoint, creating a WEB page, laboratory interfaces, portable laboratory probes, etc., and demonstrate, through sample lessons, appropriate integration of these tools into Chemistry teaching;

13. demonstrate effective peer mentoring skills;

14. use a variety of teaching strategies including; games, role-play exercises, Problem Based Learning strategies, cartoons, journals and demonstrations in planning Chemistry lessons;

15. demonstrate exemplary Science teaching practice;

16. effectively show use of differentiated instruction in class presentations

17. select and use appropriate procedures for handling numerical problems, precision, accuracy, significant digits, correct SI practice and error analysis in senior Chemistry;

18. correctly operate and diagnose problems with science equipment currently used in Chemistry at the intermediate and senior levels;

**Strategies:**

19. identify and be able to apply a variety of instructional strategies that can be used to reach exceptional students, students with different learning styles, students of different intelligences and students at different levels of knowledge and skill development;

20. identify and select appropriate assessment strategies that allow students to demonstrate various components of learning and distinguish among diagnostic, formative and summative evaluation;

21. identify and apply the use of authentic assessment tools in the science classroom ( e.g. performance based assessment);

22. identify misconceptions/alternate conceptions and design strategies to narrow or eliminate them;

23. implement appropriate strategies to ensure equity, diversity and social justice are evident in the science classroom;

24. explain the role of values issues and sensitive issues in Chemistry courses;

**Resources:**

25. list and describe suitable student and teacher resources applicable to various parts of the Chemistry guideline; texts on The Trillium List and the approved learning materials, handbooks, experiment manuals, A-V materials, teacher's guides, journals, and periodicals;

26. evaluate the potential of various learning resources for nurturing the expectations stated or inferred in the Ministry Chemistry Guideline for the Intermediate, and Senior Divisions;

**Participation:**

27. develop and share useful teaching resources including a list of web sites, labs, demonstrations, games etc.;

28. participate in presentations by asking and responding to questions, taking active part in lab work and activities and providing meaningful and constructive feedback during peer presentations;

29. actively participate in small group discussions and show an understanding of the benefits of a well structured professional learning community .

**3.4 ONTARIO COLLEGE OF TEACHERS LEARNING EXPECTATIONS**

The *Standards of Practice for the Teaching Profession* and the *Ethical Standards for the Teaching Profession* have been embedded in the learning expectations for the Additional Qualification course Honour Specialist Science. This Additional Qualification course has the following learning expectations for candidates:

1. demonstrating leadership in the implementation of Ministry of Education elementary and secondary school and curriculum policies
2. demonstrating leadership in communicating changes in and implications of provincial legislation and local policies including legal and ethical issues related to teaching Science
3. demonstrating knowledge of child and adolescent development related to the teaching of Science
4. facilitating the creation of learning environments conducive to the intellectual, social, emotional, physical, linguistic, cultural, spiritual and moral development of students
5. demonstrating leadership in anticipating, implementing and evaluating safety procedures and policies in the classroom and beyond
6. demonstrating knowledge of theoretical foundations and methodologies necessary to plan, implement and assess Science programs for students
7. promoting an awareness of current research in Science and an understanding of its implications for teaching and learning
8. demonstrating and analyzing strategies to create an inclusive, equitable and safe learning environment that addresses the diversity of learners, both children and adults
9. demonstrating leadership in accommodating and/or modifying expectations, teaching strategies and assessment practices to address the developmental and/or special needs of students
10. modelling and implementing assessment and evaluation practices based on data analysis and research to improve student achievement and learning
11. demonstrating leadership in accessing and assessing a variety of resources, including technology, within and beyond the educational system to enhance and support student learning
12. demonstrating the ability to integrate information and communication technology into teaching practice
13. demonstrating the organizational and interpersonal skills necessary as a curriculum leader in Science
14. understanding ways to facilitate reflective practice as a means to improve teaching and learning
15. demonstrating the knowledge and skills to facilitate innovation and change to improve learning
16. understanding the issues and challenges related to the teaching of Science
17. understanding how to create and sustain professional learning communities at the school, district and/or provincial level
18. understanding how to develop communication networks that promote collaboration with in-school personnel, parents/guardians and the community.

**4. Plagiarism Avoidance Pledge**

## *OISE ADDITIONAL QUALIFICATIONS COURSES - Academic Integrity*

## The Office of Teaching Advancement of the University of Toronto defines plagiarism as:

## What is plagiarism?

***Plagiarism***, as defined in the [University of Toronto] [Code of Behaviour on Academic Matters](http://www.utoronto.ca/govcncl/pap/policies/behaveac.html) (Appendix A, Item p). . . is contained in the original (1621) meaning in English: "the wrongful appropriation and purloining, and publication as one’s own, of the ideas, or the expression of the ideas ... of another." This most common, and frequently most elusive of academic infractions is normally associated with student essays. Plagiarism can, however, also threaten the integrity of studio and seminar room, laboratory and lecture hall. Plagiarism is at once a perversion of originality and a denial of the interdependence and mutuality which are the heart of scholarship itself, and hence of the academic experience. Instructors should make clear what constitutes plagiarism within a particular discipline.

The [*Code of Behaviour on Academic Matters*](http://www.utoronto.ca/govcncl/pap/policies/behaveac.html) (University of Toronto, Governing Council Secretariat, 1995, B.1. d-f) reads:

It shall be an offence for a student knowingly:

* to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e. to commit plagiarism [wherever in the Code an offence is described as depending on “knowing”, the office shall likewise be deemed to have been committed if the person ought to have known];
* to submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study in the University or elsewhere;
* to submit any academic work containing a purported statement of fact or reference to a source which has been concocted.

I have read the definition of plagiarism, and agree to follow guidelines for avoiding plagiarism on work in this course.

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Instructor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5. ASSESSMENT AND EVALUATION**

At the beginning of the course, candidates are provided with the specific expectations and forms of assessment and evaluation that will be used throughout the course. A balanced approach to candidate assessment and evaluation is used. It includes a combination of self, peer and instructor formative assessment, instructor evaluation, and models best practice. The following list of assessment and evaluation strategies is not exhaustive; it is intended to serve as a guide only.

**5.1 ASSIGNMENTS AND EVALUATION**

The final grade in this course is based on several component parts. These components are summarized on the sheet entitled "Evaluation Plan", which you can use to record your achievement on each part. The assignments are **summarized** below and described in **detail** on the accompanying sheets. The marking schemes are indicated on the appropriate checklists and rating scales.

A. **Concept Presentation** (150 points)

The **Concept Presentation** gives you practice in researching resources for an assigned concept in the senior science courses, discussing the focus and approach for presenting the topic with a peer mentor/coach, and planning a 45 min to 60 min presentation on the topic (including time for questions). Your concept presentation will give you an opportunity to develop leadership skills for the development of K-12 science curriculum that meets the needs of a diverse group of students. The due date of this assignment is determined by your instructor and is based on the number of students in the course. You will prepare a written summary of the presentation for **your peers** and **the instructor**, implement the presentation, and critique the presentation with the assistance of the peer mentor/coach. Finally you will evaluate your peer mentor/coach using the form provided. After the presentation, the instructor will meet with the presenter to describe what they saw. This presentation is to be directed at and for an audience of peers, not as if it were presented to a group of students. (See Assignment: Concept Presentation).

B. **Professional Practice** (50 points)

The **Professional Practice** exercise gives you an opportunity to assume two roles, that of a mentor/coach and that of someone being mentored/coached. It provides an opportunity for you to assess and reflect on your own professional practice and on the professional practice of a peer. The intent is also that you develop strategies for the future that will allow you to transfer the knowledge and skills learned here for supporting and mentoring other colleagues (perhaps in a future leadership role) as they too learn about mentoring. The assignment is based on the five Standards of Practices for the Teaching Profession developed by the Ontario College of Teachers (OCT) and uses the Concept Presentation as the vehicle for professional growth and reflection. You will write a 1-2 page report summarizing the experience. (See Assignment: Professional Practice Exercise)

C. **Curriculum Planning** (250 points)

This assignment has four main parts. For three parts, a small team working together will create a Unit Plan using the new science curriculum documents, create a culminating task and associated assessment tools for the unit and then prepare an STSE issue-oriented case study and associated assessment tools based on the same material. The fourth part, done individually, is a short written response about the process and the applicability of the Unit Plan to an individual school situation. (See Assignment: Curriculum Planning)

D. **Professional Growth** (50 points)

This component will be based on the following components completed throughout the course: Daily participation in class activities and overall quality of work; Concept Presentation Feedback to peers; Best Practice Days presentation; Department Issue Analysis Days and weekly reflections.

(See Assignment: Professional Growth)

**5.2 GRADING FRAMEWORK**

The following table summarizes the generic framework that will be used by your instructor to

Guide assessment and evaluation practices. Candidates will find this framework helpful for interpreting grades for all assignments. Minimum B- must be achieved to be recommended for the HS courses.

|  |  |  |
| --- | --- | --- |
| **Letter Grade** | **Percentage Range** | **Description** |
| A+  A  A- | 90 -100  85-89  80-84 | **Work of exceptional quality**.  The content, organization and style are all at a high level and move the discussion well beyond what was covered in class. The written work demonstrates excellent comprehension of the subject and, where appropriate, integrates existing research and literature. The work also demonstrates sound critical thinking, innovative ideas, and personal engagement. |
| B+  B  B- | 77-79  73-76  70-72 | **Work of good quality with no major weaknesses**.  All of the required elements of the assignment have been fulfilled. The writing is clear and explicit; the coverage and demonstrated comprehension of the topic is more than adequate. Some degree of critical thinking and personal involvement in the work is shown. There is good use of existing knowledge on the subject. |
| C+  C  C- | 67-69  63-66  60-62 | **Adequate work.**  All of the required elements have been included, although some conceptual inadequacies are present. A fair comprehension of the subject is demonstrated, but some weaknesses in content, style, organization, critical awareness, personal involvement and/or use of the literature are apparent. |
| D | 50-59 | **Some elements of the assignment are missing**.  Candidates may complete these elements and re-submit the assignment to raise the grade to a MAXIMUM level of C |
| F | 0-49 | **Failing work**.  The candidate needs to meet with the instructor. |

**5.3 EVALUATION PLAN**

HONOUR SPECIALIST SCIENCE COURSES ‑ SUMMER SCHOOL

|  |  |  |
| --- | --- | --- |
| Assignment | MAXIMUM POINTS | POINTS OBTAINED |
| A. CONCEPT PRESENTATION (30 %) | 150 |  |
| B. PROFESSIONAL PRACTICE (10 %)  a) Mentor practice 25  b) Professional Practice Report | 25  25 |  |
|
| C. UNIT PLAN, CULMINATING TASK AND CASE STUDY (50 %)  a) Culminating Task  b) Overall Unit Plan  c) Case Study  c) Individual Response | 65  90  65  30 |  |
|
|
| D. PROFESSIONAL GROWTH (10 %) | 50 |  |
| TOTAL | 500 |  |

**NOTE: A 400 - 500 POINTS B 350 - 399 POINTS F < 350 POINTS**

**All assignments not submitted by the due dates will be penalized unless accompanied by a doctor’s certificate. Late assignments receive a maximum grade of B-.**

|  |
| --- |
| **ATTENDANCE POLICY**  IN ACCORDANCE WITH REGULATION 184/97 ATTENDANCE IN ALL CLASSES, FOR THE DURATION OF THE CLASS, IS MANDATORY. ABSENCES MAY JEOPORDIZE SUCCESSFUL COMPLETION OF THE COURSE.  PLEASE ARRANGE ALL APPOINTMENTS OUTSIDE OF THE COURSE HOURS AS LISTED IN THE CALENDAR. IF AN EMERGENCY OCCURS THAT REQUIRES YOUR ABSENCE THIS MUST BE REPORTED TO BOTH THE COURSE PRINCIPAL AND THE INSTRUCTOR. |

**ASSIGNMENT A:  CONCEPT PRESENTATION**

Each candidate will plan and give a 45 to 60 minute presentation on the teaching of a concept chosen from a list prepared by the instructor, including time for questions by peers. A **peer mentor** will act as advisor regarding the focus and approach for presenting the concept, and will observe and make notes during the presentation. (See Peer Coaching by Nancy Watson et al) No more than 80% of time will be allotted for the presentation with the remaining time being used for questions and discussion from the group. Peers will provide written feedback on the presentation and the presenter and peer mentor will critique the presentation with the help of the peer feedback. The presenter will evaluate the mentor and the mentoring process and will submit a written report on the process.

The presentation should overview the concept, identify learning difficulties/conceptual gaps/misconceptions, identify resources, activities and demonstrations for overcoming the difficulties/misconceptions and teaching the concept to students, and illustrate the teaching strategies (including strategies to ensure that individual student needs are met, and that program can be modified to meet the needs of a diverse group of students). You will distribute a summary of the presentation to peers and the instructor and post your concept presentation and any supporting materials on the HS Chemistry conference.

The presentation should include whichever of the following are appropriate:

1. an interesting introduction to the concept;

2. a list of the learning difficulties/misconceptions for the concept;

3. an identification of the expectations specified by the Ministry of Education;

4. an outline for teaching the concept that addresses the different learning styles and/or intelligences;

5. demonstrations and student labs that may include computer or calculator based labs;

6. the use of video segments, creative visual aids and the chalkboard;

7. reference to any safety considerations;

8. reference to where in the curriculum the concept should be taught;

9. a description and illustration of appropriate instruments for evaluating the concept;

10. a brief description and evaluation of key references;

11. a description of practical applications and societal implications.

To expedite the presentation, an outline is to be prepared (**maximum** 6 single spaced typed pages).

You are to photocopy enough copies of the handout for distribution to the class and the instructor.

A possible format for the summary is:

(a) candidate’s name (g) lesson sequence

(b) title of the concept (h) teaching ideas

(c) background information (i) essential expectations

(d) description of difficulties/misconceptions (j) assessment and evaluation procedures

(e) advance preparation (k) applications and societal implications

(f) special materials needed (l) **annotated** references

The oral part of the presentation will give the candidate an opportunity to display some of the skills of a superior teacher:  organization, enthusiasm, initiative, scholarship, ability to commun­icate, pace and timing, skill in handling questions and discussing.  Where possible, concrete materials and AV aids should be used to enhance the presentation.

**PRESENTER: MENTOR:**

**RATING SCALE for INSTRUCTOR ASSESSMENT OF CONCEPT PRESENTATION**

**(HS Sciences)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Criteria & Weightings** | **Descriptions of Criteria** | **Fx** | **D** | **C** | **B** | **A** | **Ex** |
| **PRESENTATION** |  |  |  |  |  |  |  |
| **Organization**  **(25 points)** | * Opener was interesting * Student difficulties were identified and some solutions given * Strategies (more than one) were emphasized * Presentation was logical and linear * Different learning styles were addressed * Different multiple intelligences were addressed * Safety considerations were identified and implemented. | 6 | 14 | 16 | 19 | 22 | 25 |
|  | | | | | |
| **Creativity and Peer Involvement**  **(15 points)** | * Included creative ideas * Interesting presentation methods were used * **Peers were involved** in a creative way. | 4 | 8 | 10 | 11 | 13 | 15 |
|  | | | | | |
| **Ability to Communicate (25 points)** | * Clear * Concise * Audible * Concrete materials were displayed, demonstrated, and used by peers * Audio‑visual devices were used effectively * Command of English was superior * Well modulated * Applications and societal implications were described using appropriate language | 6 | 14 | 16 | 19 | 22 | 25 |
|  | | | | | |
| **Skill in Questioning**  **(15 points)** | * Clear concise questions were asked of peers * Accurate answers were given to questions asked by peers and by the instructor * Presenter controller questioning | 4 | 8 | 10 | 11 | 13 | 15 |
|  | | | | | |
| **Scholarship and Overall Impression**  **(25 points)** | * Superior mastery of the topic was exhibited * Superior mastery of pedagogy (different types) was exhibited * Knowledge of the expectations, how they fit into the topic, unit, course was shown * Presentation left participants with a very positive impression | 6 | 14 | 16 | 19 | 22 | 25 |
|  | | | | | |
| **Pace and Timing**  **(15 points)** | * Realistic amount of information was chosen * Realistic amount of information was taught * Time was spent on important details of content and pedagogy (K/U, T/I, C, A) * Presentation was completed within the allotted time. | 4 | 8 | 10 | 11 | 13 | 15 |
|  | | | | | |
| **OUTLINE**  **(30 points)** | * The presentation was accurately summarized * Accurate and well organized * Any candidate could go back and use the material from the presentation * **Included:** * Candidate’s name, Title of the Concept * Background Information * Description of Difficulties/Misconceptions with suggestions given to dispel or prevent * Advance Preparation for Teacher * Materials Needed * Lesson Sequence * Teaching Ideas * Suggested assessment and evaluation practices * Applications and Societal Implications * **Annotated** References | 8 | 17 | 20 | 23 | 27 | 30 |
|  | | | | | |
|  | **TOTAL** | **/150 POINTS** | | | | | |

***PRESENTER***: **MENTOR:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PEER RECOMMENDATIONS TO PRESENTER (CONCEPT PRESENTATION)**

**Topic Your Name**:

Note: Your feedback will be monitored by the Instructor for completeness and validity. Its quality will form part of the subjective evaluation component for the course.

1. List several things that you really liked about this presentation. Consider the five Standards of Professional Practice for the Teaching Profession outlined by the Ontario College of Teachers: Commitment to Students and Student Learning; Professional Knowledge; Professional Practice; Leadership in Learning Communities; and Ongoing Professional Learning.

2. Give several suggestions to help the presenter improve his/her leadership and presentation skills. Refer to the above Standards of Professional Practice.

**THIS PAGE IS TO BE GIVEN TO THE MENTOR.**

**ASSIGNMENT B: PROFESSIONAL PRACTICE**

The peer Mentoring Exercise will sharpen your analysis-of-teaching skills, give you practice in applying the elements as outlined in the Standards of Practice for the Teaching Profession, and should lead to improved instruction. Working with a peer mentor will provide first-hand experience with receiving and responding to constructive criticism and feedback. This will help prepare you for the role of department head or curriculum leader. The Standards of Practice are descriptors for the Teaching Profession. This exercise is designed to have you reflect on and model these standards and to receive input from a peer on your progress. The exercise consists of seven steps.

1. Identify a Mentor/Coach

Identify a mentor/coach who will assist you with the concept presentation and with your reflection of professional practice.

2. Review and Reflect on the Five Standards of Practice

Review carefully the five standards of practice for the teaching profession as outlined by the OCT in their booklet titled The Foundations of Professional Practice or on their web site at <http://www.oct.ca/publications/PDF/foundation_e.pdf> Consider ways to include **at least three** of the standards of practice in your concept presentation.

3. Have a Pre-Presentation Planning Meeting

Arrange a meeting with your mentor/coach prior to your concept presentation. At this meeting discuss how your Concept Presentation will be used as a basis to model and reflect, based on the five standards of practice. For example, you should show superior command of the content dealt with in the concept presentation, clearly illustrating the requirement that “Members strive to be current in their professional knowledge and recognize its relationship to practice. ” etc. Other standards of practice to be modeled during the presentation should also be identified, discussed, and agreed on.

As part of the meeting, discuss how the mentor/coach can be of additional assistance with the concept presentation (source of ideas, assisting with equipment on the day of the presentation, etc.). Establish future meeting dates as required.

4. Implement the Concept Presentation and Professional Practice Components

a) Role of the Presenter On the day of the concept presentation, model standards of practice appropriate to the presentation and arranged and agreed upon with the mentor/coach.

b) Role of the Mentor/Coach As the presentation takes place, make notes of the strengths and weakness of the presentation paying particular attention to those practices identified and mutually agreed upon in the pre-conference. Other peers will also be making notes during and after the presentation using the sheet “Peer Recommendations for Presenter”. Collect the “Peer Recommendations to the Presenter” sheets and study them in conjunction with your own notes. **Prepare a one page written summary** that can be used as a basis of discussion with the presenter after the concept presentation and as background for the presenter's final report. Address both pedagogy and the OCT professional practices..

5. Have a Post-Presentation Reflection Meeting:

Meet with your mentor/coach to discuss the success of the concept presentation. This discussion should focus on those items in the five standards of professional practice that you agreed to model during the presentation. Any additional strengths or weaknesses identified by the peer assessment should also be discussed.

6. Assign a Mark to the Mentor/Coach

You and the mentor/coach will discuss the mentors strengths and weaknesses and will assign a mutually agreed upon mark out of 25 points to the mentor/coach. This mark will be given to the **mentor/coach** in recognition of the work done in assisting the presenter and on the validity of the mentor's assessment of the professional practices modeled in the concept presentation. The presenter will complete the Mentor Practice Assessment form and hand it in with the completed Professional Practice report.

7. Write the Professional Practice Report

Prepare a one to two page single spaced professional practice report on the process and the product. The notes made by the mentor/coach during the presentation along with peers comments, the post-presentation discussion and presenter's reflections will be used as background for the report.

The professional practice report should include a brief description of the process that you and your mentor/coach used in this activity, its success, and the findings. The report should also incorporate language contained in the three previously chosen standards of professional practices to illustrate that the discussion was focused around these points when reflecting on the concept presentation. The report should comment on the strengths identified, and should suggest an area where you would like to focus your efforts next year - perhaps worded as a goal. The **mentor/coach’s report and the peer feedback sheets must be appended** to your professional practices report when it is submitted to the instructor. **Please include the Mentor Practice Assessment form in this report**.

**Professional Practice Report Assessment**.

The instructor will read the presenter's professional practice report, the peer feedback sheets, the appended mentor’s/coach’s report and the Mentor Practice Assessment form and will assign a mark out of 25 points to the presenter. This mark will be assigned to the presenter in recognition of the report writing skills, and the reflections on the presenter's professional practice**. (See Scoring Rubric: Professional Practice Report)**

NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Honour Specialist Scoring Rubric: Professional Practice Report (25 points)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Criterion** | **Level R** | **Level 1** | **Level 2** | **Level 3** | **Level 4** |
| **Reference** to elements of the Standards of Practice for the Teaching Profession | The report makes inadequate reference to three of the elements | The report makes limited reference to three of the elements of the standards. | The report makes some reference to three of the elements of the standards. | The report makes considerable reference to three of the elements of the standards with justifying statements | The report makes extensive reference to three of the elements of the standards with justifying statements |
| **Connection of the Standards to Observed Practice**  Demonstrates how the Concept Presentation was used to illustrate some of these elements. | The report shows inadequate connections between the standards and the concept presentation. | The report shows limited connections between the standards and the concept presentation. | The report shows some connections between the standards and the concept presentation with at least one direct example. | The report shows considerable connections between the standards and the concept presentation with direct examples. | The report shows a thorough connection between the standards and the concept presentation with direct examples reflecting the thesis of the report. |
| **Communication**  Communication of information and ideas | The report does not use professional vocabulary. Ideas and information presented with inadequate clarity and precision. | The report uses professional vocabulary and structure to communicate ideas and information with limited clarity and precision. | The report uses professional vocabulary and structure to communicate ideas and information with moderate clarity and precision. | The report uses professional vocabulary and structure to communicate ideas and information with considerable clarity and precision. | The report uses professional vocabulary and structure to communicate ideas and information with a high degree of clarity, precision and voice. |
| **Reflection**  Includes references to the peer and mentor comments | It is not clear that comments were used in writing the report. | Limited reference to comments is evident | Adequate reference to comments is evident | Reference to comments is evident and is reflected in a positive change that can be implemented. | Evidence of thoughtful consideration of comments is evident and is reflected in a positive change that can be implemented; an obvious knowledge of the character of the participants is evident. |

## Comments:

## / 25

NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Honour Specialist Scoring Rubric: Mentor Practice Assessment (25 points)**

Complete this and attach to Professional Practices Report and hand in TWO days after the completion of your concept presentation

|  |  |
| --- | --- |
| Mark from Mentee | **Unsatisfactory Fair Good Very Good Excellent Exemplary**  **0 6.25 13.75 16.25 18.75 21.25 25** |
| **Comments/Justification from Mentee** |  |

## ASSIGNMENT C: CURRICULUM PLANNING

The intent of this assignment is to provide you with the opportunity, to practice aspects of the process of planning a unit of study in a small group (no larger than 3) and for the possible purpose of “department-wide” adoption.

**You must choose your topic in consultation with your instructor.**

**The final product produced by the group can have no more than 40 pages of print.**

**COMPONENTS OF PLANNING ASSIGNMENT**

There are four components to this assignment:

|  |  |  |
| --- | --- | --- |
| **Components** | **Possible Marks** | **Submission Date** |
| 1. Culminating Exercise and Assessment Tools | 65 | Friday, July 10 |
| 2. Unit Plan Overview and Appendices (except case study) | 90 | Thursday, July 16 |
| 3. Issue-oriented Case Study and Assessment Tools | 65 | Friday, July 17 |
| 4. Individual Response to the Group process | 30 | Tuesday, July 21 |
| Upload the collection to the class WIKI\* |  | As Soon as Possible but no later than July 23rd |
| **TOTAL** | **/250** |  |

\*It is assumed that any needed revisions will be made before uploading the materials to the conference

**PLANNING PROCEDURE AND SEQUENCE**

***Choosing a******Topic***

In consultation with your instructor, and with your group choose a topic for this assignment.

# *PART A. Culminating Task and Its Assessment Tools*

A culminating task is an activity undertaken by students at the end of a topic as part of the summative assessment/evaluation of the unit. Since this is used to evaluate students, it must address the OVERALL expectations but should integrate a significant number of the specific expectations from each of the areas of skills and knowledge as outlined in the curriculum document. As well, the task should be linked with the Big Ideas for the unit. A culminating task **does not** introduce expectations to be learned for the first time. There must be adequate opportunities for students to practice the skills required for the culminating task – something which will be incorporated in the next part of this assignment – the unit plan.

Your group is to:

1. identify a suitable culminating task – could be an investigation; could be based in research – it will depend on the unit you are working on.
2. write the background information to be given to the student when the task is introduced (this occurs early on in the unit so students can use what they learn throughout the unit to prepare for the task.
3. outline a meaningful scenario for the students
4. break the task down into manageable steps – students are set up for success when they are provided with process steps. This allows for formative feedback from the instructor.
5. provide assessment tools to be used to **assess the process of doing the task** as well as the **final student product.** The tools must include one scoring rubric and/or rating scale. You may wish to have a checklist or other form of self assessment for students to monitor their own progress.

The culminating task should be no longer than two pages. The assessment tools are in addition to this. The culminating task will be evaluated using the "Scoring Rubric: Culminating Task and Assessment Tools (see **Appendix 1**)

***PART B: The Overall Curriculum Plan***

Your curriculum plan can be or organized in a number of ways. An example is provided in **Appendix 2**, or you may choose to use a document from your School Board that you have used for planning, or you may see your instructor for other planning ideas. (This part of the assignment will be further discussed in class.).

1. You will use a **Design Down** Process to create this unit. Begin by first **clustering all of the expectations into topics** for the unit. Note that there may overlap in these expectations. Also, Make sure to include the expectations from Unit A – Scientific Investigation Skills and Career Explorations which is found in every unit. You will not address all of the expectations in Unit A but you must address some of them in every unit so that by the end of the course they have all been addressed.

2. Next, you will create the **Unit Evaluation Plan**. As this is a unit plan for a 12U course, you can assume the 30% Final Mark will include a written final exam AND a practical, lab based evaluation. This is indicated on the sample Evaluation Plan provided in **Appendix 3**. Plan the Unit **Summative Evaluations** (assessment of learning) which will be used to evaluate the OVERALL expectations ensuring the student has practice for the final 30% course evaluation. Make sure **all** of the categories from the Achievement Chart have been addressed in the Evaluation Plan for the unit, although they may not be equally represented depending on the unit. If possible, assign a weighting to each of the summative evaluations based on the Achievement Chart categories. That is the amount that each evaluation will contribute to the assigned category. Some evaluations may contribute to more than one achievement chart category.

Also, include the **Formative Assessments and Diagnostic Assessments** (assessment for learning and/or assessment as learning) you will use for the unit. Consider using self and peer feedback/assessment. You may want to consider some time for remediation or enrichment. Please note where the **Learning Skills** could be assessed during the unit.

3. Next, design the **Lesson Sequence** to be used to teach the unit.

1. Begin each lesson with a Learning Goal – What should the students learn by doing this lesson? These are NOT just the expectations, they are in student friendly language, scaffolded, and build on success providing incremental exposure to things.
2. The lessons should provide enough detail that someone coming into the department could be given the unit plan and then begin designing Lesson Plans from the unit plan.
3. Suggest Teaching/Learning strategies to use ensuring you are implementing a differentiated approach to learning. There should be a variety of grouping types (individual, groups, pairs etc); a full spectrum of learning styles should be addressed and all expectations for the unit and the applicable expectations from unit A must be addressed.
4. Include activities, investigations, demonstration ideas, technology,
5. Make sure your unit begins by providing “context for developing the related skills and conceptual knowledge necessary for making connections between scientific, technological, social, and environmental issues.” (pg. 16 of The Ontario Curriculum Grades 11 and 12)
6. There should be evidence of attention to equity and diversity as well as environmental education.
7. **Provide the Black Line Masters (BLM)** as appendices for any activity, investigation, homework sheet so that the person given the plan can use the activity, or modify it to match their style in the classroom.
8. Make sure you DO NOT cover expectations that are NOT in this curriculum. There is a tendency to just continue doing what we’ve always done…..don’t just follow one of the textbooks written for the 2000 curriculum document!!

The unit plan will be evaluated using the "Rating Scale for Curriculum Plan" (**Appendix 4**)

***PART C: STSE Issue-oriented Case Study and Its Assessment Tools***

As part of the unit, each group is to write one original issue-oriented STSE case study using one of the STSE expectations from the curriculum document and prepare the assessment tools for assessing students' involvement in the case study. You will also prepare a set of “Teacher Notes” for the Case study and then share your ideas with the rest of the class.

**Description of the Case Study**

A **case study** is an investigation of a set of circumstances that befall an individual or group of individuals. In science, case studies often involve issues. An **issue** is a problem with two or more possible resolutions, any one of which may be satisfactory to many members of society while at the same time affecting all of society. For example, one could write a case study and involve students in what to do with Toronto's garbage. Some alternatives are reduce, reuse, recycle, send it by truck to Michigan, or send it by train to a mine in Northern Ontario. Some issues involved in the garbage problem are safety, cost, and pollution.

The issue should be clearly defined and provide background information to enable students to complete the task/answer the questions, or have them research for the information required. The issue may be addressed in various ways such as Debate, Role Play, Position Paper, Town Hall Meeting, Political Action etc.

1) Choose one (or a combination) of these approaches which best suits an Issue pulled from the unit under study.

* 1. Prepare a handout which you would distribute to your students describing what they should do and how they would do it. Include suggestions such as doing further research of the issue, identifying alternatives, potential consequences, perspectives of stakeholders and possibly “taking a stand”.
  2. Prepare assessment tools (Recording Devices) which you would also give to the students ahead of time and allow for assessment of the process as well as evaluation of the product. The evaluation should address several categories of the Achievement Chart.

**In addition to the written submission described above,** each group will be responsible for creating a set of “Teacher Notes” and planning an activity designed to familiarize each member of the class with the case study created by your group. The organization and timing of these opportunities will be detailed by your instructor.

The Case Study will be evaluated using the "Scoring Rubric: Case Study and Assessment Tools (see **Appendix 5**).

***PART D: Individual Response***

Finally, in essay format, write a MAXIMUM 2 page individual reflection to the group work process. Consider the Unit Plan itself and in reference to your own school situation, describe its usefulness and possible application. What changes and accommodations would need to be made and why? You may wish to comment on a specific T/L strategy or A/E opportunity from the unit plan as an example. Conclude your discussion with a personal comment about the group work process.

The Individual Response will be evaluated using the “Assessment Tool for Individual Response” (See **Appendix 6**)

***PART E: Upload Unit Plan, Case Study and Culminating Task to the class WIKI site.***

**ASSIGNMENT D: PROFESSIONAL GROWTH**

Components of Professional Growth include:

**Participation**

This component includes the quality of your work throughout the summer and on assignments the instructor gives either to be done in class as part of the instruction, or at home in **preparation for a future lesson/activity**. Another part of the participation is gleaned from active participation in all assignments.

**Concept Presentation Feedback**

This component includes the **constructive feedback** you give peers on their concept presentations. You must fill in the feedback form in an appropriate manner for **each** person’s concept presentation providing them with **constructive feedback** so they may grow as a teacher.

**Best Practice Day participation**

This component includes each person choosing ONE of their best ideas, demos, labs, literacy strategy etc. and presenting it to the rest of the class in a manner which showcases what you have chosen. We will sign up for this day and topic.

**Department Issues Analysis Day (DIA day) Leadership Role**

This component includes assuming the role of whole group discussion leader. Our discussions will involve issues (which the class will determine) that are typical in a high school science department. There will be one discussion leader and one group recorder for each DIA day with everyone else participating in the discussion. Each person in the group will have an opportunity to play one of these leadership roles throughout the course.

**Weekly Reflections**

This component includes completion and submission of **two one page reflection papers**. Each reflection will involve examination of theory, policy and practice. Topics for these reflections will evolve as the course progresses.

(See Appendix 4 for Assessment Rubric)

**REFERENCE TEXTS, RESOURCE BOOKS, AND DOCUMENTS**

There are no textbooks for the course. All of the science texts listed in The Trillium List or those approved for special Ministry funding for use with the Ontario curriculum can be used. Science teachers should do some readings to become familiar with the rich variety of demonstrations and teaching strategies which can be used in your classroom. The following books are representative of the many technique and resource books available, including some dealing with the application of research findings to teaching.

Aikenhead, Glen, Science Education for Everyday Life: Evidence Based Practice, New York: Teachers College Press, 2006

Aikenhead, Glen, Logical Reasoning in Science and Technology (LORST), John Wiley and Sons, 1991.

American Association for the Advancement of Science (AAAS), Science for All Americans, Oxford University Press, 200 Madison Avenue, New York, NY 10016

American Association for the Advancement of Science (AAAS), Benchmarks for Science Literacy, Oxford University Press, 200 Madison Avenue, New York, NY 10016

Asimov, Isaac (Ed), Asimov's Biographical Encyclopedia of Science and Technology, Doubleday & Co. Inc., 1982.

Association for Science Education, Science and Technology in Society (SATIS), 1987-92.

Bennett, Barrie et al., Cooperative Learning: Where Heart Meets Mind, Toronto Educational Connections, 1991.

Bennett, Barrie and Rolheiser, Carol, Beyond Monet: The Artful Science of Instructional Integration, Bookation Inc, Toronto, 2001

Budd Rowe, M.(ed.), What Research Says to the Science Teacher (Vol. 5): The Process of Knowing, NSTA, 1990.

Clarke, J., et al, Together We Learn: Cooperative Small Group Learning, Prentice-Hall Pub., 1990.

Council of Ministers of Education, Canada Common Framework of Science Learning Outcomes: Pan-Canadian Protocol for Collaboration on School Curriculum (1997) 252 Bloor Street West, Suite 5-200, Toronto, ON, M5S 1V5

Gabel, D., What Research Says to the Science Teacher (Vol. 5): Problem Solving, NSTA, 1989.

Gregory, Gayle H, and Chapman, Carolyn, Differentiated Instructional Strategies One Size Doesn’t Fit All, Corwin Press, 2007

Holdzkom and Lutz, Research Within Reach: Science Education, National Science Teachers Association, Washington, D.C.

Karukstis, Kerry and VanHecke, Gerald, Chemistry Connections: The Chemical Basis of Everyday Phenomena , 2nd edition, Academic Press, 2003

Kearns, T., et al, Managing Conflict: A Practical Guide to Conflict Resolution for Educators, OSSTF Resource Booklet, 1992

Liem, Tik L. Invitations to Science Inquiry. Second Edition, Lexington, Massachusetts: Ginn Press, 1987

Lomask, Milton, Invention and Technology: Great Lives, Charles Scribner's Sons, 1991.

Midwood, D,, & Hillier, D., Heads Up: New Directions for Department Heads, OSSTF, 1987.

Ministry of Education and Training, *Education for All* (2005)

Ministry of Education and Training, *Growing Success* (2008)

Ministry of Education and Training, The Ontario Curriculum Grades 1-8, Science and Technology, (2007)

National Academy of Sciences, National Research Council, National Science Education Standards, 1996, National Academy Press, 2101 Constitution Avenue, NW, Box 285, Washington DC 20055. This book describes the exemplary teaching practices that provide students with experiences to enable them to achieve scientific literacy, criteria for assessing and analyzing students' attainment in science, and the learning opportunities that school science programs afford.

National Science Teachers' Association (NSTA), The Content Core: Scope, Sequence, and Coordination of Secondary School Science, Volume 1, 1992. This book deals with the science content core, and is written as a guide for curriculum designer. (507.10973; C422)

National science Teachers' Association (NSTA), Relevant Research: Scope, Sequence, and Coordination of Secondary School Science, Volume 2, 1992. This volume examines relevant research related to how secondary students best learn science. (507; R382)

Ontario College of Teachers, Standards of Practice for the Teaching Profession, , 2008.

Science and Society, Science, Technology, and Society Yearbook, Canadian Student Pugwash, 1991

Science and Technology in Society, (SATIS), The Association for Science Education, 1987-92

Schwarcz, Joe, An Apple a Day, Harper Collins, Toronto, 2007

Tomlinson, Carol Ann, How to Differentiate Instruction in Mixed-Ability Classrooms, 2nd edition, ASCD, 2001

Watson , Nancy and Kilcher, Ann, Peer Coaching, Ontario Secondary School Teachers' Federation, 1990

(**Appendix 1)**

**RATING SCALE FOR**

**Culminating Task and Assessment Tools**

**STUDENT NAMES**

|  |  |
| --- | --- |
| **STUDENT HANDOUT** | |
| **Authentic, yet creative with clear indicators of success** | **/7** |
| **Clear, concise instructions to students for both process and product** | **/14** |
| **Appropriate, realistic timelines** | **/4** |
| **Aligns well with the expectations for the unit and for unit A** | **/5** |
| **ASSESSMENT TOOLS** | |
| **Authentic – measuring what they were designed to measure** | **/10** |
| **Varied assessment strategies for the components of the task** | **/10** |
| **Clear to students – does not require further information** | **/5** |
| **PRACTICALITY** | |
| **assessment tools are easily transferable to a mark**  **teacher’s time and class time demands are realistic** | **/10** |
| **TOTAL** | **/ 65** |

**OTHER COMMENTS:**

**APPENDIX 2 – SAMPLE UNIT PLAN**

**COURSE: COURSE CODE:**

|  |  |  |
| --- | --- | --- |
| **Unit of Study:** | | |
| **Curriculum: What will students learn?** | **Summary**  What will students be learning and doing in this unit? | **Overall Expectations**  Include the expectations from Unit A as well as the expectations from the Unit you are designing. |
| **Key Questions**   * Create one or two key question which will set the context for this unit. |

|  |  |  |
| --- | --- | --- |
| **Unit of Study:** | | |
| Assessment and Evaluation:  How will I know they’ve learned it? | **Assessment of Learning:**   * What will students DO to show you they have learned what you are teaching them? | Assessment for Learning:  Throughout the unit, students’ achievement of the identified learning goals is monitored ***during the learning*** using a variety of assessment strategies and tools. The core practices and strategies have been identified and embedded in the sample lessons |

**Designing the Learning:**

**Note: A Day is one 75 minute period.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cluster/Topic** | **Day** | **Concept/Sub Topic with Learning Goals for each Lesson** | **Teaching & Learning Strategies** | **Assessment (A) and Evaluation (E) with links to the Achievement Chart (Include Homework/Worksheets)**  **Learning Skills Assessment** | **Expectations using lettered codes** |
|  | **1** | By the end of the lesson students will be able to: |  |  |  |
| **2** | By the end of the lesson students will be able to: |  |  |  |
| **3** | By the end of the lesson students will be able to: |  |  |  |
|  | **4** | By the end of the lesson students will be able to: |  |  |  |
| **5** | By the end of the lesson students will be able to: |  |  |  |
| **6** | By the end of the lesson students will be able to: |  |  |  |

**Planning Notes:**

**Accommodations for Special Needs and ELL:**

**Annotated Resources:**

Appendix 3 -

**SCH 4U Course Evaluation Plan**

**30% Final Evaluations**

|  |  |  |
| --- | --- | --- |
| Task | Achievement Chart Focus | Weighting |
| Final Written Exam | K/U, T/I, C, A | 20% |
| Lab Based Performance Task | T/I, C | 10% |
|  |  |  |

**70% Course Work**

**Unit**

|  |  |  |
| --- | --- | --- |
| Summative Assessments: | Achievement Chart Focus | Weighting in Category? |
| Unit Test | K/U, T/I, C |  |
| Culminating Task |  |  |
| STSE Case Study |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Formative Assessments: | Achievement Chart Focus |  |
|  |  |  |
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|  |  |  |
|  |  |  |

*K/U – Knowledge and Understanding; T/I – Thinking and Investigation; C – Communication; A - Application*

**(Appendix 4)**

**Honour Specialist**

**Rating Scale: Overall Curriculum Plan (90 Points)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Descriptions of Criteria** | **Possible Mark** | **Assigned Mark** |
| **Scope and Sequence** | * Big Ideas are used to focus unit * Learning Goals are stated for each lesson * The clustering of expectations is appropriate * Sequence is pedagogically sound * STSE context is provided at beginning of unit. | **/15** |  |
| **Evaluation** | * Evaluation Plan is complete * Varied and reflects multiple categories of the achievement chart * Addresses the overall expectations of the unit | **/20** |  |
| **Assessment** | * Appropriate to provide students with feed back to help them improve their learning * Diagnostic and formative assessment opportunities are provided * Reflects the learning goals * Learning Skills monitoring is addressed | **/15** |  |
| **Teaching and Learning strategies** | * Strategies are clearly stated and address/support student learning of the expectations * Differentiation is evident * Equity, diversity and social justice are addresses * Environmental focus is provided * Technology use is integrated throughout unit * Opportunities to develop critical-thinking and problem solving skills are described, created or extended in activities | **/30** |  |
| **Overall Impression** | * The plan is organized, clearly presented, easy to follow, professionally done, and has department wide application. | **/10** |  |
| **TOTAL** | | **/90** |  |

**Comments:**

**(Appendix 5)**

**RATING SCALE FOR**

**CASE STUDY AND ASSESSMENT TOOLS**

**STUDENT NAMES**

|  |  |
| --- | --- |
| **STUDENT HANDOUT** | |
| **ISSUE DESCRIPTION - highlights main concerns and/or problems of the topic to be explored** | **/5** |
| **CLARITY – directions for students are easy to understand** | **/ 5** |
| **SEQUENCING AND ORGANIZATION – parts of the process are logically separated and chronologically ordered** | **/ 5** |
| **ALLOWS FOR STUDENT ACTIVITY AND CREATIVITY – while expectations for participation are clear, there is room for unique student ideas** | **/ 2** |
| **ASSESSMENT TOOLS** | |
| **PROCESS – is assessed separately and in a timely manner** | **/ 2** |
| **PRODUCT assessment does the following:** |  |
| **~ addresses several possible assessment strategies** | **/ 5** |
| **~ addresses appropriate and varied categories of the Achievement Chart** | **/ 5** |
| **~ is clear and easy to follow** | **/ 4** |
| **~ credits originality, creativity and participation** | **/ 2** |
| **OVERALL** | |
| **~ links well to Unit and STSE expectations** | **/10** |
| **~ is motivating** | **/ 5** |
| **~ shows originality** | **/ 5** |
| **TEACHER NOTES** | |
| **~ provided for implementation by the teacher with answers** | **/10** |
| **TOTAL** | **/ 65** |

**OTHER COMMENTS:**

(**APPENDIX 6)**

**ASSESSMENT TOOL FOR INDIVIDUAL RESPONSE**

**Student Name:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category & Criteria** | **Possible Mark** | **Assigned**  **Mark** | **Instructor**  **Comments** |
| **Reflection on Process**  Rich detail. Insightful. Makes reference to: individual’s contribution to group, group dynamics, group learning, group communication. Identifies strengths of the group (ie. Dynamics). Identifies group frustrations and what the individuals did to resolve them. Comment on the application and relevance of the group process (group work, reflection on the group work) to the individual’s own classroom and usability in department situations. | 15 |  |  |
| **Usefulness to Individual’s School and Accommodations that Need to be Made for Said School**  The individual’s school is described in light of social dynamics, student body, unique characteristics, and **school culture**. Statement of usefulness of this unit to the individual’s school, with explanation and justification (but not referenced). Analyse links (in the unit) to the described school community and students. | 15 |  |
| **TOTAL**  **No bibliography or footnotes accepted - this is personal** | 30 |  |

**Appendix 7 - Weekly Reflections Rubric**

Name:

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Reflective Practitioner | Aware Practitioner | Reflection Novice |
| Clarity | The language is clear and expressive. The reader can create a mental picture of the situation being described. Abstract concepts are explained accurately. | Minor, infrequent lapses in clarity. Abstract concepts are explained fairly accurately. | There are frequent lapses in clarity. Concepts are either not discussed or are presented inaccurately. |
| Relevance | The reflections show tremendous thought and effort. The learning experience being reflected upon is relevant and meaningful to student and unit learning goals. | The reflections show some thought and effort. Student makes attempts to demonstrate relevance, but  the relevance is unclear in  reference to unit learning  goals | The reflections show poor thought and effort. Most of the reflection is irrelevant to student and/or unit learning goals. |
| Analysis | The reflection moves beyond simple description of the experience to an analysis of how the experience contributed to student understanding of self, others, and/or course concepts. | The reflection demonstrates student attempts to analyze the experience to understanding of self, but analysis lacks depth. | Student makes attempts  at applying the learning experience to understanding of self, others, and/or course concepts but fails to demonstrate depth of analysis. |
| Self-Criticism | The reflection demonstrates ability of the student to question their own biases, stereotypes, preconceptions, and/or assumptions and define new modes of thinking as a result. | The reflection demonstrates ability of the student to question their own biases, stereotypes, preconceptions. New modes of thinking not evident. | There is some attempt at self-criticism, but the self-reflection fails to demonstrate a new awareness of personal biases, etc. |
| Teacher Comments | | | |